

U.S. ENVIRONMENTAL PROTECTION AGENCY  
POLLUTION/SITUATION REPORT  
Lockport Illinois Buckeye Oil Spill - Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
Region V

**Subject:** POLREP #2  
Progress  
Lockport Illinois Buckeye Oil Spill  
  
Lockport, IL  
Latitude: 41.6354890 Longitude: -88.0487240

**To:**  
**From:** James Mitchell, OSC  
**Date:** 12/20/2010  
**Reporting Period:** 12/17/2010 - 12/21/2010

## 1. Introduction

### 1.1 Background

<b>Site Number:</b>		<b>Contract Number:</b>	
<b>D.O. Number:</b>		<b>Action Memo Date:</b>	
<b>Response Authority:</b>		<b>Response Type:</b>	Emergency
<b>Response Lead:</b>		<b>Incident Category:</b>	
<b>NPL Status:</b>	Non NPL	<b>Operable Unit:</b>	
<b>Mobilization Date:</b>	12/14/2010	<b>Start Date:</b>	12/14/2010
<b>Demob Date:</b>		<b>Completion Date:</b>	
<b>CERCLIS ID:</b>		<b>RCRIS ID:</b>	
<b>ERNS No.:</b>		<b>State Notification:</b>	
<b>FPN#:</b>	E11505	<b>Reimbursable Account #:</b>	

#### 1.1.1 Incident Category

Emergency Response

#### 1.1.2 Site Description

##### 1.1.2.1 Location

The site is located on New Avenue approximately 0.5 miles south of 135<sup>th</sup> Street in Lockport, Illinois. The site is bordered to the east by New Avenue, to the north and south by open wetland areas, and to the west by railroad tracks serviced by Amtrack, Metra, and freight companies.

##### 1.1.2.2 Description of Threat

An estimated 500 barrels (21,000 gallons) of crude oil were released into a drainage ditch which flows in to a wetland area via a culvert. The spill occurred in an area near critical habitat for federally endangered species, including the Hine's Emerald Dragonfly and Leafy Prairie Clover.

#### 1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

## 2. Current Activities

### 2.1 Operations Section

#### 2.1.1 Narrative

At approximately 0720, the Lockport Fire Department responded to the incident. At approximately 0745, the pipeline was shutdown. At approximately 0820, the Responsible Party (RP), West Shore Pipeline (owner) and Buckeye (operator), responded to the incident. In addition, U.S. EPA and its Superfund Technical Assessment and Response Team (START) contractor arrived on-site to conduct oversight of cleanup activities. At this time a Unified Command was implemented with U.S. EPA, Illinois Environmental Protection Agency (IEPA), Lockport Fire Department, and Buckeye. Starting on 12/15/2010, Unified Command consists of U.S. EPA, IEPA, and Buckeye.

Initial air monitoring conducted by West Shore personnel indicated a maximum benzene reading of 6.0 parts per million (ppm) in ambient air. Based on initial air monitoring readings, West Shore personnel delineated the area with high readings as the hot zone. START personnel oversaw West Shore personnel and contractors air monitoring

activities. START also conducted air monitoring at spill site and work zones to confirm West Shore air monitoring results. Air monitoring was conducted for oxygen (O<sub>2</sub>), the lower explosive limit (LEL), volatile organic compounds (VOCs), carbon monoxide (CO), and hydrogen sulfide (H<sub>2</sub>S).

Center for Toxicology and Environmental Health (CTEH) was contracted by CN Railroad to facilitate the opening of the west track to commuters. CTEH conducted monitoring in the commuter trains as they passed the spill site to ensure commuter safety.

West Shore and Buckeye Pipeline contracted CTEH to conduct air monitoring at the site and in the nearby residential areas. CTEH has utilized AreaRAEs for continuous air monitoring in work zones and residential areas. One AreaRAE was deployed on a moving vehicle that makes rounds in the work zones and residential areas. CTEH collects air samples using summa canisters. Summa canisters are sent for laboratory analysis for VOCs and semi-volatile organic compounds (SVOCs). CTEH personnel have reported that no VOC readings have exceeded background levels in the residential area. VOC readings near the spill were detected at up to 25 ppm. START personnel are overseeing CTEH air monitoring work as well as conducting and collecting separate air monitoring data points utilized the Rapid Assessment Tool (RAT) system. START has performed ambient air monitoring near excavation activities and in general work areas with a Multi Rae. There have not been any readings above background in several days.

CTEH has submitted an addendum to the Air Monitoring Plan to US EPA which requests a reduction in the frequency and expanse of residential air monitoring. US EPA is reviewing the addendum and approval is pending on a review of the available analytical data.

West Shore and Buckeye Pipeline cleanup contractors, Future Environmental and Veolia Environmental, are using vacuum trucks to remove the crude oil from the drainage ditch and wetland area. The crude oil is transferred from the vacuum trucks to tanker trucks for off-site transport and disposal. In addition, cleanup contractors are excavating contaminated soil and transporting off-site for disposal.

In accordance with Section 7 of the Endangered Species Act and the rule at 50 CFR Part 402.05, US EPA requested emergency consultation by US Fish and Wildlife Service at West Shore Crude Line S0257EM in Lockport, Illinois. US Fish and Wildlife Service is on-scene and providing input on response actions.

### **2.1.2 Response Actions to Date**

West Shore contractor, Midwest Mechanical, has placed a temporary clamp on the pipeline break. The break is at the bottom of the pipe and is approximately the size of a quarter. The pipeline is approximately six feet below ground. Buckeye submitted a plan to Department of Transportation (DOT) Pipelines and Hazardous Materials Safety Administration (PHMSA) to conduct an integrity test. The plan was accepted and the test was conducted on the pipeline by Midwest Mechanical. The pipeline passed the integrity test on 12/16/2010 and Buckeye received approval from PHMSA to operate the pipeline at reduced pressure to provide feedstock to Shell refinery. Permanent repairs are expected to occur in January 2011.

The two railroad tracks (the east and west lines) were initially shut down after the incident. The west track was opened up on 12/14 at reduced speeds. The east rail line was opened on 12/19 at reduced speeds.

East of the railroad tracks, in the drainage ditch, excavation of contaminated soil from the furthest north to the furthest south extents of the release has been completed and a French Drain system has been installed. The French Drain system is currently collecting product. Monitoring and removal of oil via standpipes distributed along the drainage ditch is ongoing.

A crossing road has been built across the railroad tracks to allow work crews to safely access pooled oil on the west side of the railroad tracks. On 12/20, Westshore/Buckeye Pipeline completed a widening of the access road to allow heavy machinery to safely access the wetlands area.

West of the railroad tracks, product removal activities continue into the wetlands. Westshore/Buckeye contractor Entrix has completed delineation of the extent of impact in the wetlands. A swamp mat road has been constructed to allow workers access to the wetlands and the surrounding areas. Work crews have deployed absorbent boom around the extent of the oil plume and are attempting to prevent any further spreading of product. Oiled vegetation has been cut back. A recovery trench is being built along the north/south extent of the wetlands and two oil skimmers have been installed along the trench. Additional swamp mats have been installed to allow workers to access pooled oil within the wetlands. All activities in the wetlands are being coordinated with U.S. FWS and representatives of the land owner.

Experts on the Hines Emerald Dragonfly (HED) larvae have been contracted by Entrix to do a consultation on the potential impacts on HED larvae in the wetlands.

As of 12/21, an estimated 24,860 gallons of an oil and water mixture have been recovered from the drainage ditch and wetland areas. The amount is estimated due to freezing temperatures preventing product gauges from working properly in the frac tanks. In addition, approximately 1,300 cubic yards (yd<sup>3</sup>) of contaminated soil has been removed from the drainage ditch and area west of the railroad. Recovery operations overnight have been severely limited due to low temperatures freezing lines and valves on the vacuum trucks and frac tanks.

### **2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)**

The RPs, West Shore Pipelin/Buckeye Pipeline, have responded to the incident and have contractors working to recover the crude oil.

A Consent Agreement Order for Compliance under section 311(c) of the Clean Water Act was signed by USEPA OSC, Buckeye, and Westshore Pipeline on Dec. 16, 2010.

### **2.1.4 Progress Metrics**

<b>Waste Stream</b>	<b>Medium</b>	<b>Quantity</b>	<b>Manifest #</b>	<b>Treatment</b>	<b>Disposal</b>
Oil water		24,860 gal.		Yes	
Soil		1,300 yd3			Staged

## 2.2 Planning Section

### 2.2.1 Anticipated Activities

U.S. EPA will continue to conduct oversight of the cleanup activities and operate as the lead agency.

Product recovery operations will continue in the area west of the railroad with the installation of additional recovery trenches and skimmer units. Vacuum trucks will continue to pull product from areas in the wetlands as necessary.

CTEH has submitted an addendum to the Air Monitoring Plan to US EPA to scale back air monitoring in the work zone and residential areas. US EPA approval is pending a review of available analytical data.

Monitoring and removal of product from the French Drain system will continue.

Cleanup contractors will continue to recover crude oil contamination. Review West Shore/Buckeye plans for addressing remaining contamination and discuss strategy with West Shore/Buckeye, IEPA, DOT, USFWS, and IDNR regarding remediation strategies in environmentally sensitive areas west of the railroad tracks.

CTEH will continue to conduct air monitoring and air sampling activities in work zones, along the rail tracks, and the nearby residential areas.

#### 2.2.1.1 Planned Response Activities

#### 2.2.1.2 Next Steps

Product recovery activities will continue in the area west of the railroad tracks utilizing recovery trenches and skimmer units. Product recovery will also be maintained on the east side of the tracks. EPA has requested more skimmers and vacuum trucks to increase the volume of oil recovered on the west side of the tracks in the wetlands area. EPA has recommended storing vacuum trucks in heated warehouse at night to keep them from freezing.

### 2.2.2 Issues

On 12/18, New Avenue was reopened to general traffic. An increased amount of traffic and speeding have led to some unsafe conditions, especially with the potential for unsafe weather conditions. Increased signage along the work zones has been implemented.

Freezing temperatures have severely limited product recovery efforts. Vacuum truck and frac tank hoses and connections are frequently freezing and limiting the product removal.

## 2.3 Logistics Section

Currently there are 2 vacuum trucks, four backhoes, and approximately 125 roll-off bins from Westshore/Buckeye's contractors being used for removal of product.

Recovered oil is being sent to the Citgo Refinery in Lockport, Illinois. Excavated soil will be staged at the Citgo Refinery while awaiting disposal. Samples have been collected from them to determine if they must be disposed of as hazardous waste.

## 2.4 Finance Section

No information available at this time.

## 2.5 Other Command Staff

### 2.5.1 Safety Officer

START prepared a Site-Specific Health and Safety Plan (HASP) for emergency response activities at the site. The RP and their contractors are working under their own HASP.

OSHA inspected the site on 12/16 -17 with the Buckeye and no health and safety issues were noted.

New Avenue was reopened on 12/18/10. Buckeye hired contractors to meet federal requirements for construction areas.

Extreme cold weather (below 0F) conditions a major safety factor and is being addressed on a day to day basis.

## **2.6 Liaison Officer**

### **2.7 Information Officer**

#### **2.7.1 Public Information Officer**

USEPA contact is Jayna Legg

#### **2.7.2 Community Involvement Coordinator**

USEPA contact is Don Deblasio

## **3. Participating Entities**

### **3.1 Unified Command**

Unified Command has been implemented at the site and U.S. EPA is the lead agency. The incident Commander (IC) is U.S. EPA OSC Jim Mitchell. The command post is located at 12920 Bell Road in Lemont, Illinois. Unified Command currently consists of U.S. EPA, IEPA, and Buckeye.

### **3.2 Cooperating Agencies**

RPs – West Shore Pipeline and Buckeye Pipeline

RP Contractors

- CTEH (air monitoring)
- Delta (environmental)
- Future Environmental (cleanup)
- Veolia Environmental (cleanup)
- Midwest Mechanical (pipeline repair)
- Entrix (environmental – wetlands)

U.S. EPA START Contractor – Weston Solutions, Inc.

## **4. Personnel On Site**

U.S. EPA – 2 (day ops)

START – 2 (day ops)

RP and contractors – 60

IEPA – 2

USFWS - 2

## **5. Definition of Terms**

CO = carbon monoxide

CTEH = Center for Toxicology and Environmental Health

DOT = Department of Transportation

HASP = Health and Safety Plan

H<sub>2</sub>S = hydrogen sulfide

IC = Incident Commander

IDNR = Illinois Department of Natural Resources

IEPA = Illinois Environmental Protection Agency

LEL = lower explosive limit

O<sub>2</sub> = oxygen

OSC = On-Scene Coordinator

PHSMA = Pipeline and Hazardous Materials Safety Administration

ppm = parts per million

RAT = Rapid Assessment Tool

RP = Responsible Party

START = Superfund Technical Assessment and Response Team

SVOC = semi-volatile organic compound

USACE = United States Army Corps of Engineers

U.S. EPA = United States Environmental Protection Agency

USFWS = United States Fish and Wildlife Services

VOC = volatile organic compound

yd<sup>3</sup> = cubic yards

## **6. Additional sources of information**

### **6.1 Internet location of additional information/report**

### **6.2 Reporting Schedule**

Pol/Sit Rep will be on a three day reporting schedule.

## **7. Situational Reference Materials**

NRC Report #895256

NRC Report #962178

NRC Report #962179